



# Timing & Frequency Control Devices For Aerospace & Defense

Wi2Wi, through the acquisition of Precision Devices Inc. (PDI) has long proven history of providing Rugged, Robust and Reliable Timing and Frequency Control Devices for the Aerospace, Defence, Industrial, Telecom and Consumer market segments. Products are manufactured in the ISO 9001:2008 certified factory in Middleton Wisconsin. Qualified Product List (QPL) Oscillators are certified to meet MIL-PRF-55310 and Crystals are certified to meet MIL-C-3089 and further meets all requirements of MIL-STD-790 Product Assurance (A QPL Company).

### QPL (Qualified Product List ) Oscillators (MIL-PRF-55310 Oscillators)

Wi2Wi designs and manufactures a wide range of Qualified Product List (QPL) Oscillators for a wide range of applications in Military, Space, and Avionics. QPL Oscillators are quartz crystal clock oscillator products that are certified to meet MIL-PRF-55310 are offered over the temperature range of -55°C to 125°C. Qualified MIL-PRF-55310 slash numbers include /08, /09, /14, /16, /17, /18, /19, /21, /25, /26, /30.

MIL-55310/08 🛬 Thru-Hole TTL 750kHz to 50MHz 0.887L x 0.540W x 0.200	<sup>in</sup> 14-Pin
MIL-55310/09 < Thru-Hole TTL 750kHz to 60MHz 0.410D x 0.300H in	TO-5
MIL-55310/14 Thru-Hole TTL 750kHz to 25MHz 0.887L x 0.540W x 0.200	in 14-Pin
MIL-55310/16 Thru-Hole TTL 750kHz to 60MHz 0.887L x 0.540W x 0.200 0.887L x 0.540W x 0.265	
MIL-55310/17 Thru-Hole TTL 12MHz to 50MHz 0.887L x 0.540W x 0.200	in 14-Pin
MIL-55310/18 Thru-Hole CMOS 0.1Hz to 15MHz 0.887L x 0.540W x 0.200	in 14-Pin
MIL-55310/19 SMD TTL 1MHZ to 60MHZ 0.480L x 0.480W x 0.085	in 40-Pin
MIL-55310/21 E Flat Pack TTL 1MHZ to 60MHZ 0.650L x 0.650W x 0.120	in 20-Pin
MIL-55310/25 Thru-Hole ECL 25MHZ to 60MHZ 0.887L x 0.540W x 0.200 0.815L x 0.515W x 0.200	
MIL-55310/26 Thru-Hole CMOS 15kHz to 60MHz 0.887L x 0.540W x 0.200 0.815L x 0.515W x 0.200	
MIL-55310/30 😽 J-Lead LVCMOS 1.54MHz to 100MHz 0.560L x 0.360W x 0.188	in 4-Pin

# TCXO / TCVCXO / VCXO

Wi2Wi's Temperature Compensated Crystal Oscillators (TCXO) ensure a precise frequency under demanding circumstances. With ultra-low phase noise, low jitter, high vibration tolerances, a variety of popular packages, and hermetically sealed quartz crystals.

Type/Series	Image	Package	Output	Frequency Range	Dimensions	Features
TV02	2	SMD Seam Welded	Clipped Sine	10MHz to 52MHz	2.5 x 2.0 x 0.8mm	Small Footprint 1.8 to 3.3 V supply available
TV03	2	SMD Seam Welded	Clipped Sine	10MHz to 52MHz	3.2 x 2.5 x 1.0mm	Small Footprint 1.8 to 3.3 V supply available
TV05	€ <mark>n</mark> a	SMD Seam Welded	TTL/CMOS LVCMOS Clipped Sine	10MHz to 52MHz	5.0 x 3.2 x 1.5mm	5V Available Multiple Output Types
TV07		SMD Seam Welded	TTL/CMOS LVCMOS Clipped Sine	8MHz to 52MHz	7.0 x 5.0 x 2.3mm	5V Available Multiple Output Types
TC02	₽.¢	SMD Seam Welded	Clipped Sine	10MHz to 52MHz	2.5 x 2.0 x .9mm	Small Footprint 1.8 to 3.3 Vsupply available
TC03	*	SMD Seam Welded	Clipped Sine	10MHz to 52MHz	3.2 x 2.5 x 1.0mm	Small Footprint 1.8 to 3.3 Vsupply available
TC05	Ø <sub>₽1</sub>	SMD Seam Welded	TTL/CMOS LVCMOS Clipped Sine	10MHz to 52MHz	5.0 x 3.2 x 1.5mm	5V Available Multiple Output Types
TC07		SMD Seam Welded	TTL/CMOS LVCMOS Clipped Sine	8.0.MHz to 52.0MHz	7.0 x 5.0 x 2.3mm	5V Available Multiple Output Types
TLT3	4	SMD	CMOS	32.768KHz	3.28 x 2.50 x 1.30mm	
VC05	ŵ	SMD	HCMOS TTL	1.0MHz to 125.0MHz	5.0mm x 3.2mm	Ceramic
VC07	-	SMD	HCMOS TTL	10MHz to 250MHz	5.0 x 7.0mm	Ceramic,Low Jitter, Low Profile
VC29	-	SMD	HCMOS PECL TTL	4.0MHz to 10.0MHz	14.0 x 9.6 x 6.4mm	Low Jitter, Low Profile
VC40	1	SMD	LVDS LVPECL	60.0MHz to 800.0MHz	14.0 x 9.6 x 6.4mm	Low Profile





# ΟCXΟ

PDI brand Oven Controlled Crystal Oscillators (OCXO) from Wi2Wi ensure a precise frequency under the most demanding circumstances. With ultra-low phase noise, high vibration tolerances, a variety of popular packages, and double hermetically sealed quartz crystals. PDI Brand OCXOs are offered in standard and custom frequencies. Wi2Wi provides fast sampling from customer's proto-typing needs through mass production and offer competitive pricing and on-time deliveries.

Type/Series	Image	Package	Output	Frequency Range	Dimensions	Features
VN01	D	Thru-Hole	SINEWAVE into 50ohms	5MHz to 100Mhz	35.5 x 25.4 mm	Low Phase Noise
VN03	-	Thru-Hole	SINEWAVE into 50ohms	5MHz to 100Mhz	25.4 x 25.4 mm	Low Phase Noise
VN04		Thru-Hole, Gull Wing	HCMOS / LVCMOS	10MHz to 50MHz	20.20L x 12.52W x 7.80H mm	Ultra-Low Phase Noise

# **Space Level Oscillators**

Wi2Wi designs and manufactures a wide array of "PDI Brand" wide variety of Space Qualified (Space Level) Quartz Crystals, Clock Oscillators and Crystal Filters (Quartz Crystal Filters) specifically for the Avionics and Space market. The product family is hermetically sealed to exceed all performance and functionality requirements in the extreme environment in the space applications.

Type/Series	Image	Package	Output	Frequency Range	Dimensions	Features
FP1		Flat Pack	CMOS LVCMOS LVDS LVPECL	750KHz to 850MHz	25.35 x 35.31 x 5.33mm	24-Pin
FP2		Flat Pack	CMOS LVCMOS LVDS LVPECL	750KHz to 800MHz	16.51 x 16.51 x 4.5mm	20-Pin1
FP4		Flat Pack	CMOS LVCMOS LVDS LVPECL	750KHz to 800MHz	20.6 x 20.6 x 10.49mm	4-Pin1
FP6		Flat Pack	CMOS LVCMOS LVDS LVPECL	750KHz to 800MHz	24.4 x 25.4 x 4.45mm	6-Pin
JS4		J Lead Gull Wing Thru Hole	LVCMOS	750KHz to 200MHz	0.9 x 7.4 x 4.3mm	

#### **CERTIFICATIONS**

- DSCC Laboratory Suitablity Certified.
- Qualified Products List: MIL-PRF-55310 Oscillator
- Qualified Products List: MIL-PRF-3098 Crystal Units, Quartz
- MIL-STD-790 Products Assurance Certified.
- ISO 14644-1 & 2, Class 7 (FED-STD-209E), Class 10,000 clean room
- Thermal Shock testing compliant to MIL-STD-883
- Mechanical Shock and Vibration testing complaint to MIL-STD-202

Malaysia

China

NEXCOM

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